From: Bartenfelder, David
To: Tzhone, Stephen
Cc: Berg, Marlene
Subject: FW: Arkwood Groundwater
Date: Tuesday, September 22, 2015 9:08:11 AM

Stephen-

Here are some thoughts/comments I sent forward last week on the Arkwood Path Forward. Some of this work might have already been done and included in other documents, but I wanted to set them out there for consideration before undertaking a lot of facilitated transport work. There are some upfront considerations I wanted to lay out and these consideration might eliminate the facilitated transport path altogether and/or help to focus the study.

Hope this help and let me know if you have any questions.

Dave

From: Bartenfelder, David
Sent: Friday, September 18, 2015 10:22 AM
To: Poore, Christine; Berg, Marlene
Subject: Arkwood Groundwater

Christine and Marlene-

I read through the "Path Forward" and had a few comments.

1) To take a step back and ask if there was a lineament and/or fracture trace study to try to determine any preferential pathways in the epikarstic environment (i.e., laterally and vertically).
2) There is a lot of confidence given to the six inch cover, but what is the performance of the cover. Would prefer something more quantitative attributed to the cover performance, like is will be constructed to meet a 10-5 cm/s performance, for example.
3) Is there any information regarding the potential colloidal transport contribution? Is there any TSS data (NTU) from the groundwater monitoring wells that could give semi-quantitative info on colloid mobility and presence? Is there data to support dioxin values in a comparison of filtered versus non-filter groundwater samples?

Dave

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